Leidy, Robert

Sent: Wednesday, November 13, 2013 9:11 AM
To: Jessop, Carter
Subject: FW: Cienega Creek water depths
Attachments: MeadMierdropbox.zip

Categories: Red Category

Carter,

From: Mead Mier [mailto:MMier@pagnet.org]
Sent: Tuesday, April 02, 2013 4:37 PM
To: Julia Fonseca
Cc: Leidy, Robert; Brian Powell; David Scalero; czucker@pagnet.org
Subject: Re: Cienega Creek water depths

Dear Rob,

In the link below to Dropbox, I have uploaded our records of maximum stream depth in the thalweg at Marsh Station and Del Lago. You will see that this is accompanied by groundwater level data at the nearest well and was only measured for a 2 year study.

Also uploaded are numerous Excel work books that each contain a monthly profile of the creek (containing several depths across the width of the stream) used as part of calculating monthly flow volume at Marsh Station Bridge. You could choose to look at the low flow months of May-June if that is helpful.
I also uploaded streamflow data from the Headcut Site (HC) for a comparison of profiles, but this data was only collected for a 2 year study.

The Excel workbook titled HabitatFieldForm has mean depth for each hydrologic unit (riffles, pools, and runs) in a 2mile area surrounding the "headcut" study zone. Although this might be the closest data we have to the information you requested, this was conducted during the month of March, which is usually one of the higher flowing times of year.

https://www.dropbox.com/sh/2g3e8dbd51mzt8c/tuJ6iQ_RVi

Please let me know if you need any help using these worksheets or have any questions.
Best,
Mead

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On 3/19/2013 8:41 AM, Julia Fonseca wrote:

> With field measurements of lots of cross-sections representing the principal types of cross-sectional geometries, it would be possible to get this information. I don't think LiDAR has sufficient resolution. If you mean from existing data, I don't think there is sufficient information at this level of resolution you have specified. But I am copying others. At the three flow measurement stations, there might be records of channel geometry, but again, I am not sure if those three point would be representative of the channel as a whole, even if precision is sufficient. There is largely variability, both temporally and spatially, caused by vegetative roughness, primarily, as well as occasional scour holes due to bedrock.

From: Leidy, Robert [mailto:Leidy.Robert@epa.gov]
Sent: Monday, March 18, 2013 10:13 AM
To: MMier@PAGnet.org; Julia Fonseca
Subject: RE: Cienega Creek water depths

Hello Mead and Julia,

I hope you have been well. I am interested in your views on whether it is practicable to estimate average depths of wetted channel during seasonal low flows for the Cienega Creek Preserve. For example, would it be possible to measure what percentage of the total wetted channel is less than 0.1', 0.25', etc, when conducting annual streamflow length surveys? Stated another way, is it possible to collect information so that we can understand what percentage of the total wetted channel area is ≤ 0.1', etc in depth during the seasonal low flow period?

Best,

Rob

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